REMARKS

Currently claims 1-20 stand rejected under 35 U.S.C. 112 second paragraph. Claims 1-2, 9,14, and 16-18 stand rejected under 35 U.S.C. 102 (b) as being anticipated by Moe et al. Claims 1 and 8 stand rejected under 35 U.S.C. 102 (b) as being anticipated by Morse. (3,913,813). Claims 1 and 8 stand rejected under 35 U.S.C. 102(b) as being anticipated by Morse et al (3,608,796). Claims 9 and 17 are objected to because of informalities. The drawings are objected to under 37 CFR 1.83(a). The abstract of the disclosure is objected to because of the use of implied phrases. Applicants respectfully submit that for the following reasons, claims 1-2, 9,14, and 16-18 are not anticipated under 35 U.S.C. 102(b) by Moe et al, and claims 1 and 8 are not anticipated under 35 U.S.C. 102(b) by Morse (3,913,813) or by Morse et al (3,608,796). Applicants respectfully request reconsideration and further examination of claims 1-20.

Drawings

The drawings are objected to under 37 CFR 1.83(a), as the drawings must show every feature of the invention specified in the claims. Examiner states that the stopping means (see claim 16) must be shown, or the feature cancelled from the claims. The drawings are amended herein to include a stop **40**. Applicants respectfully submit that as amended the drawnings are in more proper form, in compliance with the examiner's request.

Specification

The abstract of the disclosure is objected to because of the use of implied phrases such as "is disclosed". Applicants respectfully submit that as amended the abstract is in more proper form, in compliance with the examiner's request.

35 U.S.C. 112 rejections

Claims 1-20 stand rejected under 35 U.S.C. 112 second paragraph as being indefinite for failure to particularly point out and distinctly claim the subject matter which applicants regards as the invention. Specifically the Examiner states claims 1-20 are incomplete for omitting essential structural cooperative relationships of elements – in this case the "relationship between a gimbal direction, a gimbal axis, and a caster axis with respect to a steering roller."

M.P.E.P. 2173.05(a) states "The meaning of every term used in a claim should be apparent from the prior art *or from the specification and drawings* at the time the application is filed." (emphasis added). Regarding claims 4, 7, 10, 11, and 20 the Examiner asks "what is a gimbal axis?" Referring to the specification page 3 lines 15-17, "a gimbal axis **6** which is parallel to the direction of linear movement of the entering web, and which preferably intersects the longitudinal axis **9** of the roller at the midpoint of the roller." Further Figures 3 and 4 show a gimbal axis **6**. Regarding claims 1,9, and 17, the Examiner asks "what is a gimbal direction?" Referring to the specification page 4 lines 6-9, "By biasing the steering roller **10** in a gimbal direction it is meant that the steering roller is pivoted about the gimbal axis **6** such that the web **2** on the downstream side of the steering roller **10** is not perpendicular to the longitudinal axis **9** of the steering roller **10**." These passages also answer the Examiner's question "How is the gimbal axis related to the gimbal direction, and with respect to what axis or frame of reference are applicants defining the gimbal axis?" For the purposes of examination, the Examiner has assumed "the gimbal direction is parallel to the moving web and perpendicular to the steering roller" and further that "the gimbal axis is parallel and lies in the gimbal direction." Reference to the specification shows that these assumptions are not accurate. Applicants respectfully submit that rejection of claims 1,9, and 17, and the claims which depend from them, on this basis is in error, and request that the rejection on this basis be withdrawn.

Regarding claims 7, 8, 10, and 20, the Examiner asks "what is a caster axis?" Referring to the specification page 3 lines 23-25 "a caster axis **7**, which is

an axis perpendicular to the gimbal axis, which intersects the gimbal axis **6** upstream of the roller." Further, Figure 4 shows a caster axis **7**. For the purposes of examination, the examiner has assumed that "the caster axis is perpendicular to the gimbal axis." Reference to the specification shows that the caster axis is indeed perpendicular to the gimbal axis, AND it intersects the gimbal axis upstream of the roller. Applicants respectfully submit that rejection of claims 7, 8, 10, and 20, and the claims which depend from them, on this basis is in error, and request that the rejection on this basis be withdrawn.

Regarding claims 7, 10, and 20, last line, the examiner asks "is 'a gimbal axis' the same as or different from 'a gimbal axis' in line 3 of the claims?" For the purpose of examination, the Examiner has assumed they are the same. Claims 7, 10, and 20 are herein modified to reflect that they are the same. Applicants respectfully submit that as amended claims 7, 10, and 20 are in more proper form, and in compliance with 35 U.S.C. 112 second paragraph.

Art Rejections

Claims 1-2, 9,14, and 16-18 stand rejected under 35 U.S.C. 102 (b) as being anticipated by Moe et al. Examiner states that Moe et al discloses "a means for biasing (88) in a gimbal direction (56)." As discussed above "By biasing the steering roller **10** in a gimbal direction it is meant that the steering roller is pivoted about the gimbal axis **6** such that the web **2** on the downstream side of the steering roller **10** is not perpendicular to the longitudinal axis **9** of the steering roller **10**." This conflicts with the Examiner's assumptions for purposes of examination. With regard to claims 1-2, applicants respectfully request the Examiner identify where Moe et al discloses "A method of web tracking adjustment for guiding a moving web in a predetermined path of travel relative to a stationary frame, comprising: biasing a steering roller in a gimbal direction; and, adjusting said bias to achieve desired tracking" so applicants can adequately respond. With regard to claims 9, 14, and 16-18, applicants respectfully request

that Examiner identify where Moe et al discloses "a gimbaled steering roller having a lateral constraint; a means for biasing said steering roller in a gimbal direction; and, a means for adjusting said bias to achieve desired tracking" so applicants can adequately respond. In the absence of such, applicants respectfully submit that rejection of claims 1-2, 9,14, and 16-18 on this basis is in error, and request that the rejection on this basis be withdrawn.

Claims 1 and 8 stand rejected under 35 U.S.C. 102 (b) as being anticipated by Morse. (3,913,813). Examiner states that Morse discloses "biasing a steering roller (11) in a gimbal direction (20); adjusting the bias (60)(70)(72)". As discussed above "By biasing the steering roller **10** in a gimbal direction it is meant that the steering roller is pivoted about the gimbal axis **6** such that the web **2** on the downstream side of the steering roller **10** is not perpendicular to the longitudinal axis **9** of the steering roller **10**." This conflicts with the Examiner's assumptions for purposes of examination. Applicants respectfully request the Examiner identify where Morse et al discloses "biasing a steering roller in a gimbal direction; and, adjusting said bias to achieve desired tracking" so that applicants can adequately respond. In the absence of such, applicants respectfully submit that rejection of claims 1 and 8 on this basis is in error, and request that the rejection on this basis be withdrawn.

Claims 1 and 8 stand rejected under 35 U.S.C. 102(b) as being anticipated by Morse et al (3,608,796). Examiner states that Morse et al discloses "biasing a steering roller (2) in a gimbal direction (34); adjusting the bias (36)(44)(46)". As discussed above "By biasing the steering roller **10** in a gimbal direction it is meant that the steering roller is pivoted about the gimbal axis **6** such that the web **2** on the downstream side of the steering roller **10** is not perpendicular to the longitudinal axis **9** of the steering roller **10**." This conflicts with the Examiner's assumptions for purposes of examination. Applicants respectfully requests the Examiner identify where Morse et al discloses "biasing a steering roller in a gimbal direction; and, adjusting said bias to achieve desired

tracking" so that applicants can adequately respond. In the absence of such, applicants respectfully submit that rejection of claims 1 and 8 on this basis is in error, and request that the rejection on this basis be withdrawn.

Applicants respectfully submit that claims 1-20 are allowable as herein amended, and request that the amendment to the drawings be approved and the amendments to the claims and specification be entered, and the rejections against them be withdrawn.

Respectfully submitted,

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Marked up claims and specification for response to the office action mailed on April 23, 2002.

In re Application of:

Timothy J. Young, Larry T. Schlitzer,
Kevin E. Yousey, Kevin S. Reitter

Examiner Minh Chau Pham

Serial No. 09/772,177

Group Art Unit No. 3654

Filing Date: 01/29/2001

For WEB TRACKING ADJUSTMENT DEVICE AND METHOD THROUGH USE OF A BIASED GIMBAL

7. (once amended) The method of claim 1 further comprising a housing and spring flexures, wherein said housing is pivotally mounted to said frame such that said housing pivots about a gimbal axis, and wherein said steering roller is mounted on a roller shaft, which said shaft is in turn mounted to said housing by said spring flexures, such that said spring flexures allow said steering roller to pivot about a caster axis, while said housing allows said steering roller to pivot about [a] <u>said</u> gimbal axis.

9. (once amended) A web tracking apparatus for [a] guiding a moving web in a predetermined path of travel relative to a stationary frame, comprising:

a gimbaled steering roller having a lateral constraint;

a means for biasing said steering roller in a gimbal direction; and,

a means for adjusting said bias to achieve desired tracking.

10. (once amended) The apparatus of claim 9 further comprising a housing and spring flexures, wherein said housing is pivotally mounted to said frame such that said housing pivots about a gimbal axis of said steering roller, and wherein said steering roller is mounted on a roller shaft, which said shaft is in turn mounted to said housing by said spring flexures, such that said spring flexures

allow said steering roller to pivot about a caster axis, while said housing allows said steering roller to pivot about [a] said gimbal axis.

16. (once amended) The web tracking apparatus of claim 9 further comprising a [stopping means] stop for preventing said steering roller from rotating too far in the gimbal direction.

17. (once amended) A method of web tracking adjustment for guiding a [photoconducter] photoconductor loop in a electrostatographic reproduction apparatus on a predetermined path of travel relative to a stationary frame, comprising:

biasing a steering roller in a gimbal direction; and,

adjusting said bias to achieve desired tracking.

20. (once amended) The method of claim 17 further comprising a housing and spring flexures, wherein said housing is pivotally mounted to said frame such that said housing pivots about a gimbal axis, and wherein said steering roller is mounted on a roller shaft, which said shaft is in turn mounted to said housing by said spring flexures, such that said spring flexures allow said steering roller to pivot about a caster axis, while said housing allows said steering roller to pivot about [a] said gimbal axis.

ABSTRACT

(once amended) A method and apparatus for web tracking adjustment for a web handling system [is disclosed, comprising] comprises biasing a steering roller in a gimbal direction, and adjusting the bias to achieve the desired tracking.

Please add the following paragraph to the specification page 5, at line 11:

According to a further aspect of the invention, a stop **40** is used for preventing the steering roller **10** from rotating too far in the gimbal direction.

Part of #4

Marked up drawings for response to the office action mailed on April 23, 2002.

In re Application of:

Timothy J. Young, Larry T. Schlitzer,
Kevin E. Yousey, Kevin S. Reitter

Examiner Minh Chau Pham

Serial No. 09/772,177

Group Art Unit No. 3654

Filing Date: 01/29/2001

For WEB TRACKING ADJUSTMENT DEVICE AND METHOD THROUGH USE OF A BIASED GIMBAL

approved
pmc
11-15-02

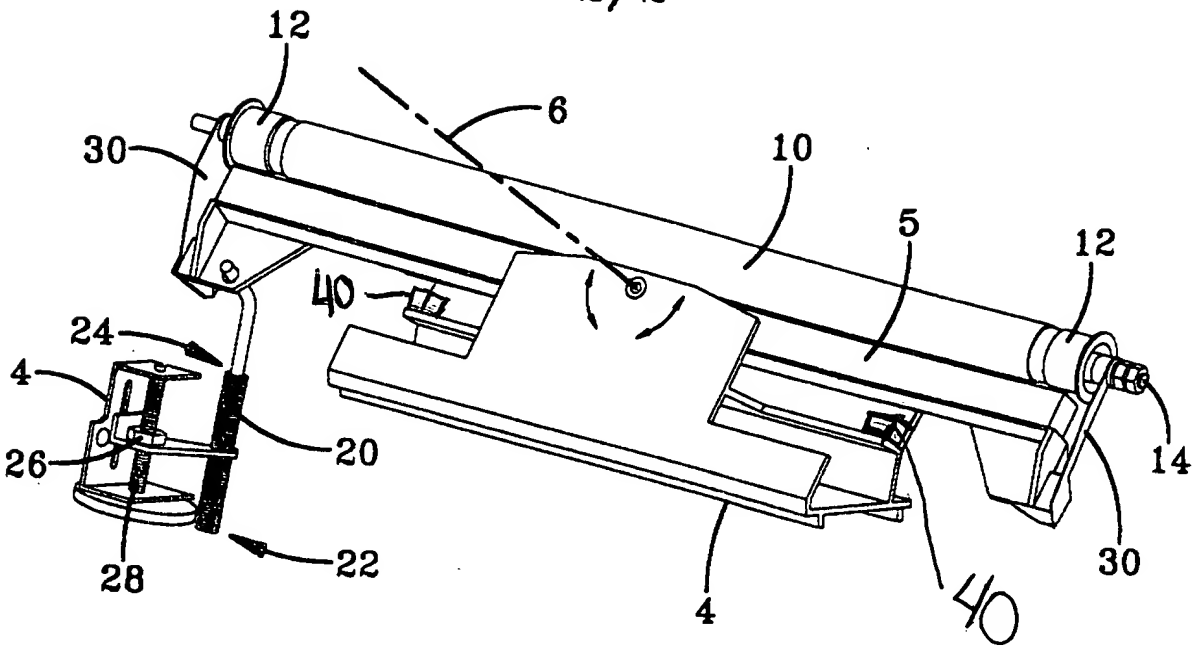

FIG-3

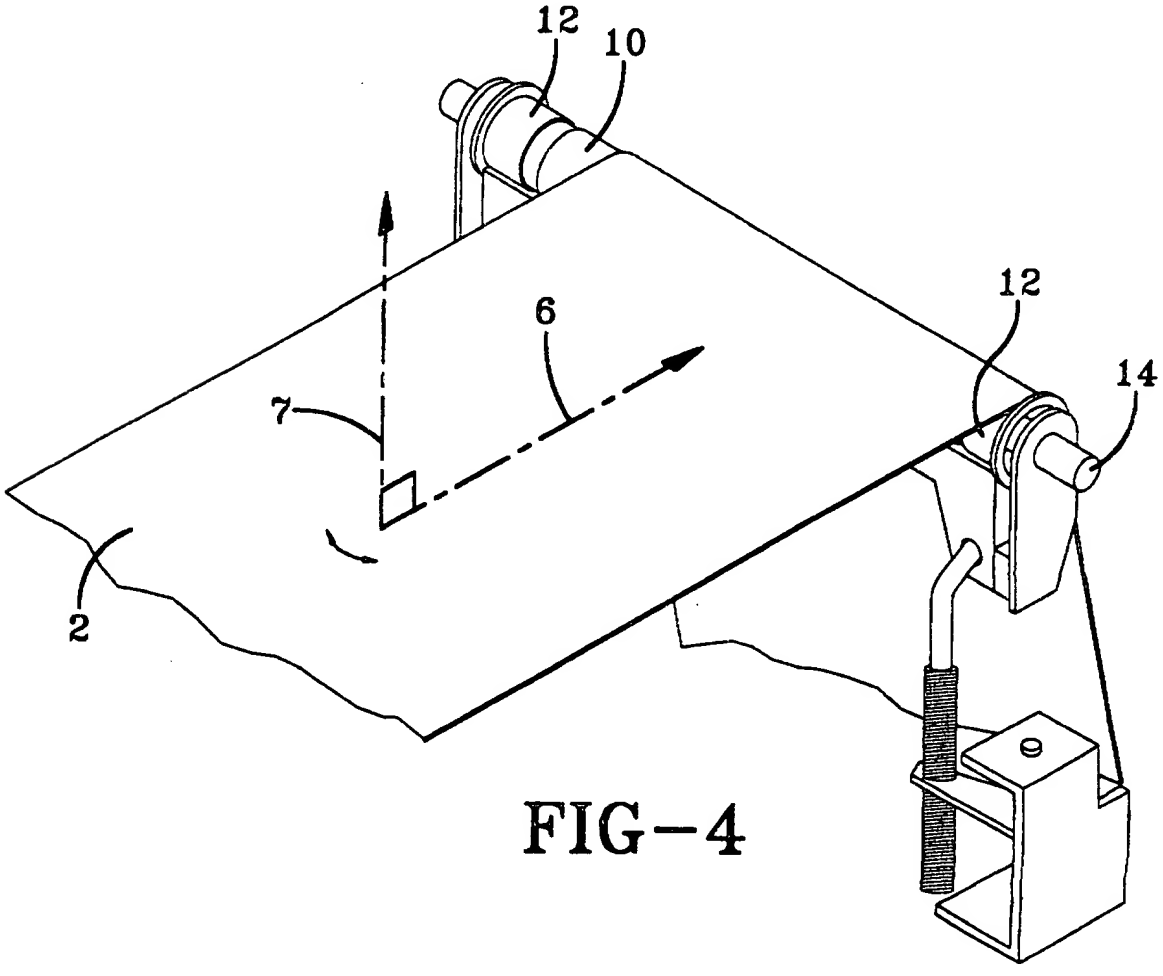

FIG-4